



SMAP Algorithms and Cal/Val Workshop

Oxnard, CA, USA

June 9-11, 2009

Welcome



Introduction

- SMAP will provide a capability for global mapping of soil moisture and freeze/thaw state with unprecedented accuracy, resolution, and coverage.
 - These measurements will be used to enhance our understanding of processes that link the water, energy and carbon cycles, and to extend the capabilities of weather and climate prediction models.
 - They will also provide data that will be used to quantify net carbon flux in boreal landscapes and to develop improved flood prediction and drought monitoring capabilities.
- *The SMAP mission is currently in its formulation phase, which requires the development of algorithm theoretical basis documents (ATBDs) and a calibration/validation (C/V) plan.*
- There are a number of scientific issues that need resolution and review by the community before these plans advance. These documents, plans and decisions will have significance in identifying research needs and allocating resources.
- *This workshop will review the ATBDs and C/V plan, solicit input from experts in these areas, resolve key issues, and develop implementation plans.*
 - The workshop addresses both algorithms and C/V because they are inseparable; mission science requirements drive the algorithms, which in turn drive the C/V plan .



Introduction

- SMAP Applications Workshop

- September 9-10, 2009

- Silver Spring, MD

- Website:

- <http://smap.jpl.nasa.gov/events/index.cfm?FuseAction=ShowNews&NewsID=12>



Agenda

- Mission Overview (Tues. 8:45 am-11:05 am)
- Algorithms (Tues. 11:05 am-Weds 2:10 pm)
- Cal/Val (Weds 2:10 pm-Thursday 4:30 pm)
- *Each of the sessions will end at the scheduled time. Unresolved issues can be addressed in evening discussions or follow-on telecoms.*
- Lunch ~ 1 hour on your own
- SMAP SDT (Fri. 8:00 am-12:00 pm)



Additional Presentations

- The workshop will include solicited presentations; however, under each topic there will be an opportunity for comments from the participants as well as 1-slide/2-minute presentations on aspects that could enhance the algorithm or cal/val activities.
- Presentations that were not submitted to the chairs in advance will be included if time permits at the end of the Workshop.



Goals

- Review of the SMAP ATBDs by the community
 - Identify areas requiring further R&D
 - Prioritize R&D
- Review of the SMAP C/V Plan by the community
 - Identify and prioritize C/V needs from ATBDs
 - Develop a near-term (2010) field experiment plan
 - Develop plan for post-launch validation infrastructure



Agenda

- Mission Overview (E. Njoku)
 - 08:45 SMAP mission status (Kellogg)
 - 09:15 SMAP Measurement System (West)
 - 10:00 Break
 - 10:15 SMAP Science Data System (SDS) (Bicknell)
 - 10:40 Gridding/Projections & Algorithm Testbed Status (Dunbar)